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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/720,485
Filing Date	November 25, 2003
First Named Inventor	Robert Weger
Art Unit	2832
Examiner Name	Tuyen T. Nguyen
Attorney Docket Number	BOE01 040

### ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Request for Reconsideration
<div>Remarks</div> <p>The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 04-1679. A duplicate of this sheet is enclosed.</p>		

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Duane Morris LLP		
Signature			
Printed name	Mark Comtois		
Date	December 16, 2005	Reg. No.	46,285

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ATTORNEY DOCKET NO. BOE01 040

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Patent Application of Robert WEGER

Confirmation No.: 4361

Serial No.: 10/720,485

Art Unit: 2832

Filed: November 25, 2003

Examiner: Tuyen T. Nguyen

Title: COIL ARRANGEMENT WITH VARIABLE INDUCTANCE

**Request for Reconsideration**

**Mail Stop: Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Sir:

This is in response to the Advisory Action mailed December 6, 2005, in which the Office refused to enter Applicant's proposed amendment on the ground that Applicant's amendments necessitated additional search and/or consideration. Applicant respectfully requests the Examiner's reconsideration and withdrawal of the Advisory Action.

In the preceding response, Applicant amended claim 1 to include the recitations of dependent claims 3 and 7. In amending claim 1 to include the recitation of claim 3, the limitation "evenly" was excluded. To this end, claim 3 was not cancelled. On the other hand, claim 7 was cancelled as the subject matter claimed therein was incorporated in claim 1.

To the extent that the Examiner has previously searched and considered each of claims 3 and 7 (now cancelled), the incorporation of these claims into claim 1 does not constitute additional or new subject matter nor does it require further search. Accordingly, the Advisory Action should be withdrawn. See, *e.g.*, MPEP 714.13.

In addition, the outstanding rejection should be rejected in its entirety for the reasons stated in Applicant's preceding response and repeated here. Namely, claim 1 recites: "each of said first and said second working windings wound on its respective toroid core only." (Emphasis added.)

The reference to Fawcett shows a coil arrangement in which the first and second toroid cores both carry portions of the first and second working windings. In other words, the first working winding is wound around both the first and second toroid core and the second working winding is wound around both the first and second toroid core, wherein the first and second working windings are wound in opposite directions around the toroid cores. This concept is illustrated in Fawcett's Figs. 1, 5, 6A and 6B. Particularly, Fig. 5 shows that both cores carry parts of both working windings in the same manner as shown in Fig. 1.

Because Fawcett discloses windings wound around both the first and the second toroid cores (as opposed to claim 1 which recites winding on a respective core), Fawcett is not anticipatory.

The obviousness rejection of claim 13 over Fawcett in view of Larikka should also be reconsidered and withdrawn. The claimed invention is directed toward controlling high frequency currents in switching power supplies. In conventional systems, when inductivity is at a minimum due to a DC biasing current, the toroid cores are at a high saturation such that high frequency fields can no longer be accommodated due to a large permeability  $\mu$  in the core. This

inevitably causes large interference and emission problems. The coil arrangement of Fawcett is used as a switching element for read/write operations of a magnetic drum. Therefore Fawcett does not even relate to the same field of endeavor as Applicant's claimed invention, let alone addressing the problems contemplated by Applicant.

Thus, claims 1 and 13 define three major differences over Fawcett. First, each claimed working winding is wound on its respective core only. Second, the windings of the control winding are distributed over the circumference of both cores. Finally, each working winding is evenly distributed around the periphery of the respective core. (See, *e.g.*, claim 3.) These structural differences provide a number of advantages.

One significant advantage of the claimed structure over Fawcett is the arrangement and distribution of the working windings and the control windings over the entire toroid cores. Only the claimed geometry enables a perfect guidance of the magnetic field within the core while significantly reducing emission. In addition, by distributing the windings over the respective cores, optimum use can be made of the available winding space and losses due to the reduction of core heating. Distributing the control winding on both toroid cores enables an exceptionally even pre-magnetization of the core material. Further, the evenly-wound coil geometry is inherently self-shielding and prevents magnetic stray fields from leaving the toroid cores. Fawcett fails to disclose or discuss any of the above structural features or effects of the claimed invention. Therefore, the differences between the claimed invention and Fawcett are such that the subject matter of the claimed invention could not have been obvious to one of skill in the art based on Fawcett.

The secondary references fail to address these deficiencies.

For example, Larikka alleges a single layer winding evenly distributed around the circumference of a toroid core. However, the reference does not relate to a coil arrangement having a variable inductance as there is neither a control winding nor working windings wound on separate cores. Larikka relates to a choke used for filtering interference that occur in an electric current. Larikka uses the low interference characteristics of a wound toroid core. Larikka does not disclose a variable inductance wherein the inductivity is adjusted using a DC pre-magnetization current in a control winding. Because Larikka describes a completely different coil arrangement having a different effect from that of the present invention, a person of ordinary skill in the art would have no reason to modify the coil of Fawcett in view of Larikka.

For these reasons, independent claims 1 and 13 are deemed patentable over the references and the remaining claims are deemed patentable at least by the virtue of their dependence from claims 1 and 13.

Please reconsider the rejections and allow the application to issue.

While an extension of time is not deemed necessary, the Office is requested and hereby authorized to charge the appropriate extension-of-time fees against Account No. 04-1679 to Duane Morris LLP.

If any point remains that is deemed best resolved through a telephonic conversation, the Office is hereby requested to contact the undersigned directly.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Mark C. Comtois", written over a horizontal line.

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